

**TEST 1 REVIEW**

1. Round the following measurements to 3 significant figures:

a) 0.0485624 m \_\_\_\_\_

b) 83000000 s \_\_\_\_\_

c) 1842700 g \_\_\_\_\_

2. Convert the following units:

a) 536 mg to kg

b) 253 mi to cm (1 mi = 1.6093 km)

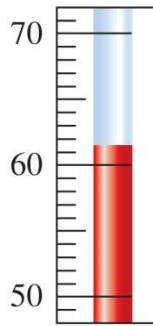
c) 120 km/h to miles/min

3. In each pair below, select the higher temperature.

a) 10 °C or 40 °F

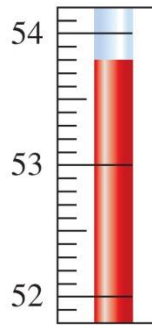
b) 300 K or 90 °F

4. Read each Celsius thermometer below with the correct number of digits:

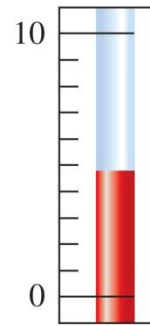


**A**

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**B**



**C**

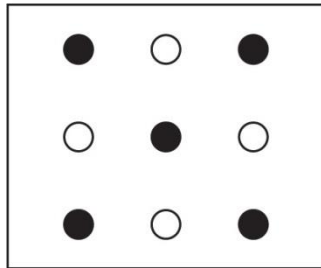
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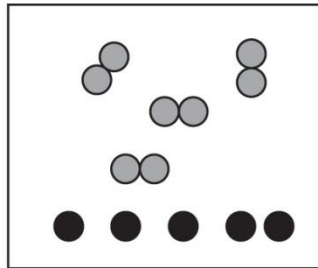
5. Which diagram below illustrates heterogeneous mixture? \_\_\_\_\_

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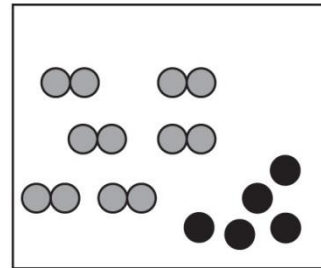


**a.**

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**b.**



**c.**

6. Shown below are the specific heats of several substances. If equal amounts of each substance are heated at the same temperature,

- a) Which substance will have the highest temperature? Briefly explain.

Substance	Specific heat (J/g°C)
Copper	0.385
Silver	0.235
Titanium	0.523
Iron	0.452

- a) Which substance will have the lowest temperature? Briefly explain.

7. How many joules of heat are required to raise the temperature of 975 g of aluminum from 0.0°C to 50.0 °C? The specific heat of aluminum is 0.900 J/g°C.

8. 25.0 kJ of heat are added to a 500.0-g bar of iron metal at 25 °C. What is the final temperature of the iron bar? Specific heat of iron is 0.452 J/g°C.

9. What mass (in grams) of a 12.0% sugar water solution is needed to supply 20.0 g of sugar?

10. The price of 1 lb of potato is \$1.75. If all the potatoes sold at the store in one day bring in \$1420, how many kg of potato did the grocery shoppers buy?

11. Celeste's diet restricts her intake of protein to 24 g per day. If she eats an 8.0-oz burger that is 15.0% protein, has she exceeded her protein limit for the day? If yes, how many ounces of a burger would be allowed for Celeste?